

REMARKS/ARGUMENTS

Favorable consideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-14 are pending in the application, with Claim 1, 13, and 14 amended by the present amendment.

In the outstanding Office Action, the drawings and specification were objected to; Claims 1-10 and 12-14 were rejected under 35 U.S.C. § 102(a) as being anticipated by Chen et al. (hereinafter Chen) (“Some Mechanisms to Improve TCP/IP Performance Over Wireless and Mobile Computing Environment,” July 4, 2000); and Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen in view of Boudreux (U.S. Patent No. 6,466,556 B1).

Applicants acknowledge with appreciation the personal interview on June 2, 2004 between the Examiner, the Examiner’s supervisor, and Applicants’ representative. During the interview, Applicants’ claimed two-step process of, upon detecting a handover, agent-advertising and multicasting was contrasted with Chen’s disclosed single step process of, upon detecting a handover, multicasting. The Examiners agreed to further consider these arguments when formally filed.

The specification is amended to define acronyms and in response to the objection to the drawings. No new matter is added.

Claim 1 is amended to recite, *inter alia*, when detecting the start of a handoff, the previous foreign agent requesting the new foreign agent to agent-advertise to the mobile terminal equipment; and when receiving an agent advertisement from said new foreign agent, the mobile terminal equipment performs a regional registration of the mobile terminal equipment so as to doubly register the mobile terminal equipment so that the mobile terminal equipment is associated with both the previous foreign agent and the new foreign agent.

Independent Claims 13-14 are similarly amended. Support for these amendments is found in Applicants' originally filed specification.¹ No new matter is added.

Briefly recapitulating, Claim 1 is directed to a handoff method of performing a handoff when mobile terminal equipment is moving from a previous foreign agent to a new foreign agent in a mobile IP network. The method includes a step of the previous foreign agent requesting the new foreign agent to agent-advertise to the mobile terminal equipment when the previous foreign agent detects the start of a handoff. When receiving an agent advertisement from the new foreign agent, the mobile terminal equipment performs a regional registration of the mobile terminal equipment so as to doubly register the mobile terminal equipment so that the mobile terminal equipment is associated with both the previous foreign agent and the new foreign agent. The method also includes a) determining whether or not an IP packet destined for the mobile terminal equipment is of real-time traffic when the mobile terminal equipment is doubly registered; and b) multicasting the IP packet to both the previous foreign agent and the new foreign agent if the IP packet is of real-time traffic, and buffering the IP packet if the IP packet is of non-real-time traffic. When the handoff is completed, the regional registration is updated so that the mobile terminal equipment is associated only with the new foreign agent. When IP packets of non-real-time traffic are buffered, transferring the buffered IP packets of non-real-time traffic to the new foreign agent.

Chen discloses a method for buffering non-real time traffic and directed multicasting real time traffic during a mobile handover, where the mobile handover includes a step of a new base station receiving a registration reply.² Chen, however, does not disclose whether the registration is initiated by the previous base station, the mobile, or the home agent. That is, Chen discloses that the new base station begins multicasting once the previous base station

¹ Specification, page 15, lines 20-28

² Chen, page 442, line 46.

detects a handover. However, Chen does not disclose or suggest Applicants' claimed process that includes requesting, by the previous foreign agent, that the new foreign agent advertise to the mobile terminal equipment when the previous foreign agent detects the start of a handoff. Thus, Chen also fails to disclose or suggest, when receiving an advertisement from the new foreign agent, the mobile terminal equipment performs a regional registration, as recited in amended Claim 1. Also Chen does not disclose Applicants' recited step of registration by the mobile terminal.

As Chen does not disclose or suggest all the elements of independent Claim 1, Applicants submit the inventions defined by Claim 1, and all claims depending therefrom, are not anticipated and are not rendered obvious by the asserted prior art for at least the reasons stated above.³ Applicants submit that the inventions recited in independent Claims 13-14 patentably define over Chen for similar reasons.

Applicants also traverse the rejection of original Claims 2-7. Applicants traverse the finding that Chen discloses performing at a home agent or a gateway foreign agent, Applicants' claimed steps of a) determining whether or not an IP packet destined for the mobile terminal equipment is of real-time traffic when the mobile terminal equipment is doubly registered; and b) bicasting the IP packet to both the previous foreign agent and the new foreign agent if the IP packet is of real-time traffic, and buffering the IP packet if the IP packet is of non-real-time traffic. Regarding the rejection of Claims 2-4, the passages of Chen cited in the Official Action⁴ are silent about the role of Chen's disclosed home agent regarding determining a traffic type and bicasting or buffering. Instead, Chen discloses the new base station will buffer non-real time traffic.⁵ In addition, Applicants submit Chen does

³ MPEP § 2142 "...the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."

⁴ Official Action, page 4.

⁵ Chen, page 442, left column, lines 52-55.

not explain whether the non-real time traffic to be buffered originates at the mobile or at the home agent. Regarding the rejection of Claims 5-7, the entire reference, including the passages cited in the Official Action, fails to disclose a gateway foreign agent of any sort, and clearly not a gateway foreign agent configured to execute Applicants' claimed method. Thus, Applicants submit Chen does not anticipate the inventions recited in Claims 2-7.

Accordingly, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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